

Central Brooklyn Model Cities Master Development Plan

Summary Report



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CENTRAL BROOKLYN MODEL CITIES
MASTER DEVELOPMENT PLAN

SUMMARY REPORT

March, 1973

Prepared for CBMC-HOUSING DEVELOPMENT COMPANY, INC.

JONES and DARBY, INC., Planning Consultants
62 Fifth Avenue, New York, New York 10011

SUMMARY OF METHODOLOGY AND PRELIMINARY FINDINGS

The Central Brooklyn Model Cities (CBMC) area has been a focal point of development discussion for the past decade. In spite of the interest, there has been a minimal amount of development activity. This situation is most apparent in Brownsville's Marcus Garvey Urban Renewal Area, where there has been an abundance of unimplemented planning. It is this trend on which the findings in this study are focused.

The study is based on data gathered from various sources. Demographic data has been derived from Census Data.^{3/} The Housing and Development Administration's Office of Brooklyn Development has been most helpful in supplying information regarding development activities in the CBMC area, and the CBMC administration has consistently lent assistance in preparing this report. To the data obtained through these sources has been added the results of an exterior condition survey conducted by Jones and Darby, Inc. This information has been analyzed to arrive at a realistic appraisal of present conditions in the CBMC area, as well as the status of development plans. All sites that offer possibilities for the rehabilitation of existing structures or for

³ U.S. Census, 1970, New York, N. Y. SMSA Census Tracts Table P-1, "General Characteristics of the Population: 1970."

constructing new developments have been inventoried and analyzed. In some instances, the review of current development sites and the plans for these sites has led to suggestions to alter the proposed plans. The various sites have been assembled into development packages according to the type of development and the development status. The phasing of each development is keyed to the designation, sponsorship, acquisition and clearance status of each development package.

Since the aim of CBMC is to deliver housing in the low and moderate rental spheres, financial studies have been conducted to arrive at the extent and method of subsidies that are required.

The decision on the mix of low- and moderate-income units as well as the various sizes of dwelling units is based on census data which relate the size of a family to its income. The tables that follow summarize the findings of this study by showing how the number of units that can be constructed should be divided by income and unit size. A complete explanation of methodology used to derive this data is found in Appendix 1.

TABLE II

Summary of Total Number of Dwelling Units that can
be Generated in Central Brooklyn Model Cities by
Community and Development Phase

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Development Phase	Communities						Totals
	Marcus Garvey	Brownsville URA	Brownsville Vest Pocket	Ocean Hill	East New York	Bedford- Stuyvesant	
Phase I HDA Unencumbered	1967	-	-	285	36	114	2402
Phase II HDA Encumbered	1882	124	420	1252	448	460	4586
Phase III Suggested Clearance	-	-	1851	4757	1240	434	8282
Total New Construction	3849	124	2271	6294	1724	1008	15,270
Concurrent with All Phases Rehabilitation	876	104	193	2623	2177	1802	7775
Grand Total	4725	228	2464	--	3901	--	--

TABLE III

Total Number of Dwelling Units by Size and Income Level - ALL PHASES

Unit Size	Income Level	Phase I HDA	Phase II HDA	Phase III Suggested	Rehabilitation	Total Dwellings in all Phases
		Unencumbered	Encumbered	Clearance		
0 Br.	M	77	146	263	245	731
	L	172	329	592	559	1652
1 Br.	M	136	261	473	444	1314
	L	463	883	1595	1496	4437
2 Br.	M	166	317	572	535	1590
	L	716	1367	2469	2316	6869
3 Br.	M	84	161	291	273	809
	L	334	636	1150	1079	3199
4 Br.	M	69	133	241	225	668
	L	185	352	637	599	1773
Total: 23,042						

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M: Moderate Income
L: Low Income
Br: Bedroom

TABLE IV

New Construction on Phase I, HDA Unencumbered Sites
by Community and by Unit Size and Income Level

Unit Size	Income Level	Marcus Garvey URA	Brownsville URA	Brownsville Vest Pocket	Ocean Hill	East New York	Bedford-Stuyvesant	Total
0 Br.	M	63	0	0	9	1	4	77
	L	141	0	0	20	3	8	172
1 Br.	M	112	0	0	16	2	6	136
	L	379	0	0	55	7	22	463
2 Br.	M	136	0	0	20	2	8	166
	L	586	0	0	85	11	34	716
3 Br.	M	69	0	0	10	1	4	84
	L	273	0	0	40	5	16	334
4 Br.	M	57	0	0	8	1	3	69
	L	151		0	22	3	9	185
Total:2402								

Prepared By: Jones and Darby, March 1973

M: Moderate Income
L: Low Income
Br: Bedroom

TABLE V

New Construction on Phase II, HDA Encumbered Sites, by
Community and by Unit Size and Income Level

Unit Size	Income Level	Marcus Garvey	Brownsville URA	Brownsville Vest Pocket	Ocean Hill	East New York	Bedford-Stuyvesant	Total
0 Br.	M	60	4	13	40	14	15	146
	L	135	9	30	90	32	33	329
1 Br.	M	107	7	24	71	26	26	261
	L	362	24	81	241	86	89	883
2 Br.	M	130	9	29	86	31	32	317
	L	561	37	125	373	134	137	1367
3 Br.	M	66	4	15	44	16	16	161
	L	261	17	58	174	62	64	636
4 Br.	M	55	4	12	36	13	13	133
	L	145	10	32	96	34	35	352
Total:4585								

M: Moderate Income
L: Low Income
Br: Bedroom

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TABLE VI

New Construction on Phase III, by Suggested Clearance
Sites and by Unit Size and Income Level

Unit Size	Income Level	Marcus Garvey	Brownsville URA	Brownsville Vest Pocket	Ocean Hill	East New York	Bedford- Stuyvesant	Total
0 Br.	M	-	-	59	151	39	14	263
	L	-	-	132	340	89	31	592
1 Br.	M	-	-	106	271	71	25	473
	L	-	-	356	916	239	84	1595
2 Br.	M	-	-	128	328	86	30	577
	L	-	-	552	1418	370	129	2467
3 Br.	M	-	-	65	167	44	15	291
	L	-	-	257	661	172	60	1150
4 Br.	M	-	-	54	138	36	13	241
	L	-	-	143	366	95	33	637
Total:8283								

M: Moderate Income

L: Low Income

Br: Bedroom

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TABLE VII

Concurrent with All Phases--Rehabilitation
by Community and by Unit Size and Income Level

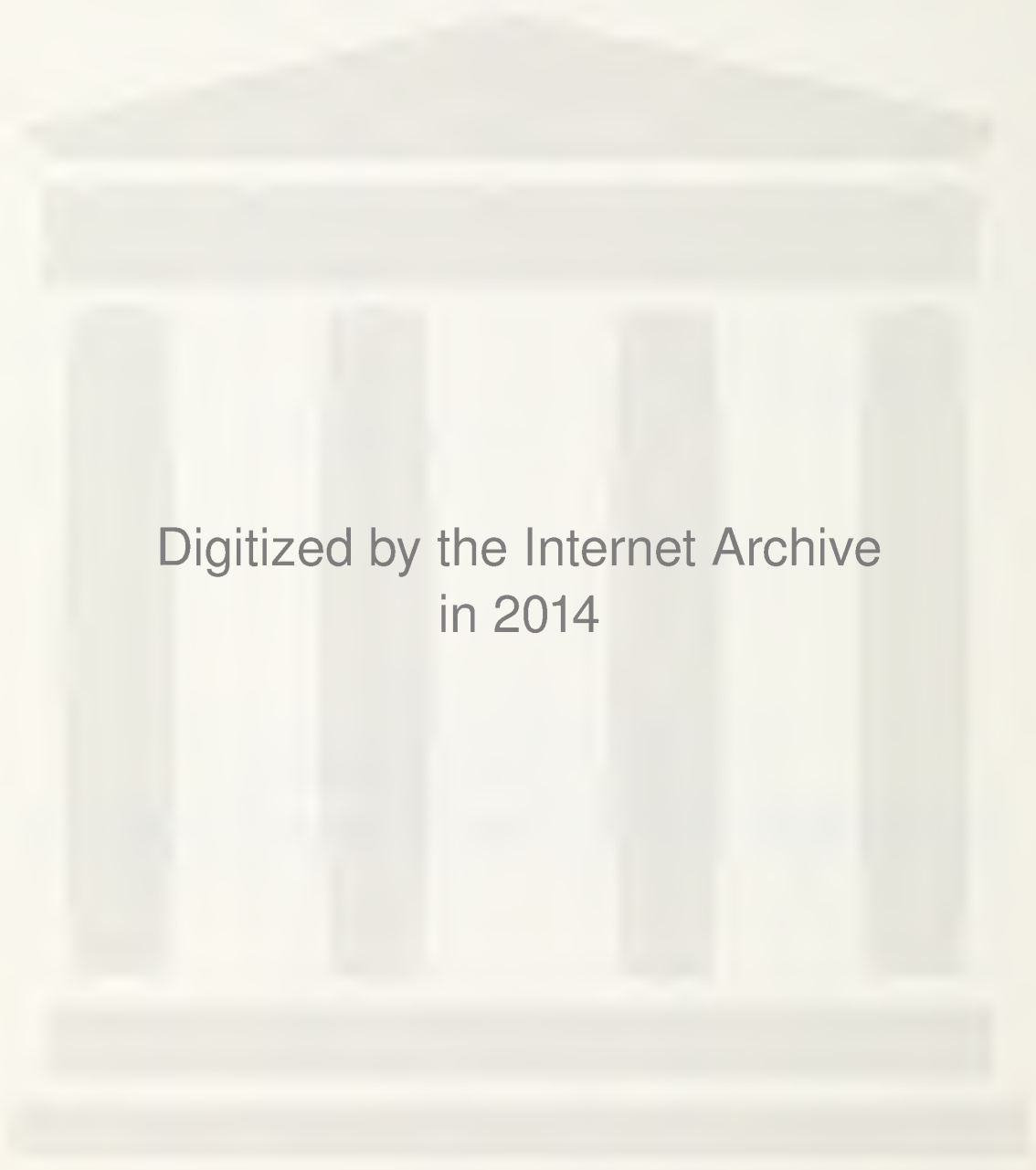
Unit Size	Income Level	Marcus Garvey	Brownsville URA	Brownsville Vest Pocket	Ocean Hill	East New York	Bedford Stuyvesant	Total
0 Br.	M	27	3	6	83	69	57	245
	L	67	7	13	187	156	129	559
1 Br.	M	50	6	11	150	124	103	444
	L	169	20	37	505	419	346	1496
2 Br.	M	60	7	13	181	150	124	535
	L	261	31	56	782	649	537	2316
3 Br.	M	31	4	7	92	76	63	273
	L	122	14	27	364	302	250	1079
4 Br.	M	25	3	6	76	63	52	225
	L	67	8	15	202	168	139	599
Total:7771								

M: Moderate Income

L: Low Income

Br: Bedroom

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FINANCIAL ANALYSIS

General

It was anticipated, when this plan was initially undertaken, that the basic tools for delivery of low and moderate-income housing in the Central Brooklyn Model Cities (CBMC) area would be low-rent public housing and the HUD section 236 interest subsidy program.

In January 1973, President Nixon, by executive order, impounded federal funds for both programs for a period estimated to be eighteen months. At the time of this writing, there is speculation concerning the amounts and forms in which housing subsidy funds may become available in coming months, including community development revenue sharing funds. However, no definite estimates of available resources can be made at this time.

It would be useful, however, to clearly identify the ways in which assistance must be utilized to enable the HDC to produce housing on the sites recommended in this report within the rent paying ability of the CBMC area inhabitants.

From Table I^{1/} which describes the number of families of Area II Brooklyn, and their annual incomes,

^{1/} Derived from "Employment Profiles of Selected Low-Income Areas, Brooklyn Borough, New York - Area II" Jan. 1972.

This Table XII is intended as an aid in deciding on the rent policy and the percentage of CBMC area residents who could benefit by certain rent boundaries. It describes how rents must be reduced in order to serve the families in the CBMC area, according to their income levels, as well as the number of families that can afford to pay these various rents.

TABLE X
NUMBER AND PERCENTAGE OF FAMILIES IN AREA II - BROOKLYN
BY SIZE AND INCOME - RELATED TO DWELLING UNIT SIZE

INCOME	1 Person 0 BR	2 Persons 1 BR	3.4 Persons 2 BR	5.6 Persons 3 BR	7 Persons 4 BR	Total
Less than \$1000	0.68% 963	1.44% 2020	1.90% 2673	0.59% 825	0.37% 521	4.98% 6039
\$1000-1999	0.46% 645	1.51% 2126	0.99% 1387	0.20% 285	0.17% 241	3.33% 4039
\$2000-2999	1.16% 1624	4.02% 5649	2.46% 3462	0.51% 722	0.24% 340	8.39% 10173
\$3000-3999	1.38% 1937	2.41% 3381	5.21% 7317	0.79% 1106	0.24% 332	10.03% 12136
\$4000-4999	1.45% 2032	1.81% 2548	3.31% 4656	3.17% 4459	0.76% 1071	10.50% 12734
\$5000-5999	1.52% 2136	2.05% 2882	4.18% 5870	2.08% 2920	1.22% 1709	11.05% 13381
\$6000-6999	1.24% 1741	2.24% 3153	2.69% 3781	1.58% 2220	1.25% 1752	9.00% 10906
\$7000-7999	1.17% 1642	2.08% 2926	3.17% 4453	1.20% 1691	0.87% 1217	8.49% 10287
\$8000-8999	1.00% 1410	1.76% 2480	2.32% 3256	1.45% 2039	0.75% 1057	7.28% 8832
\$9000-9999	0.65% 919	0.89% 1245	1.73% 2435	0.77% 1081	0.71% 995	4.75% 5756
\$10000-11999	1.16% 1627	2.60% 3651	2.67% 3754	1.26% 1772	0.72% 1018	8.41% 10195
\$12000-14999	1.03% 1445	1.79% 2514	2.52% 3543	1.30% 1826	0.84% 1174	7.48% 9057
\$15000 +	0.87% 1221	0.98% 1377	2.14% 3012	1.32% 1849	1.00% 1412	6.31% 7650

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TOTAL - 140535

TABLE XI

Rent Paying Ability by Family Size and
Income Related to Dwelling Unit Size

	0 Br 2 - 2 1/2 Rooms	1 Br 3 - 3 1/2 Rooms	2 Br 4 - 4 1/2 Rooms	3 Br 5 - 5 1/2 Rooms	4 Br + 6 - 6 1/2 Rooms
Income	1 Person	2 Persons	3-4 Persons	5-6 Persons	7 Persons +
Less than \$1,000	Less than 8.32	Less than 6.94	Less than 5.21	Less than 4.17	Less than 3.47
\$1,000 - 1,999	8.33 - 16.66	6.95 - 13.88	5.22 - 10.42	4.18 - 8.33	3.48 - 6.94
\$2,000 - 2,999	16.67 - 25.00	13.89 - 20.83	10.43 - 15.63	8.34 - 12.50	6.95 - 10.42
\$3,000 - 3,999	25.01 - 33.32	20.84 - 27.78	15.64 - 20.84	12.51 - 16.67	10.43 - 13.89
\$4,000 - 4,999	33.33 - 41.65	27.79 - 34.72	20.85 - 26.05	16.68 - 20.83	13.90 - 17.36
\$5,000 - 5,999	41.66 - 49.98	34.73 - 41.67	26.06 - 31.26	20.84 - 25.00	17.37 - 20.83
\$6,000 - 6,999	49.99 - 58.31	41.68 - 48.61	31.27 - 36.47	25.01 - 29.17	20.84 - 24.30
\$7,000 - 7,999	58.32 - 66.64	48.62 - 55.56	34.48 - 41.68	29.18 - 33.33	24.31 - 27.78
\$8,000 - 8,999	66.65 - 74.97	55.57 - 62.50	41.69 - 46.89	33.34 - 37.50	27.79 - 31.25
\$9,000 - 9,999	74.98 - 83.30	62.51 - 69.40	46.90 - 52.10	37.51 - 41.66	31.26 - 34.72
\$10,000 - 11,999	83.31 - 99.96	69.41 - 83.33	52.11 - 62.52	41.47 - 50.00	34.73 - 41.67
\$12,000 - 14,999	99.97 - 124.95	83.34 - 104.17	62.53 - 78.15	50.01 - 62.50	41.68 - 52.08
\$15,000 +	more than 124.96	more than 104.18	more than 78.16	more than 62.51	more than 52.09

Rent Level Computed at
dollars/room/month

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TABLE XII

Rent Paying Ability by Family Size and Income

Per- centage Persons	Rent Paying Ability by Family Size and Income										Per- centage Persons	
1.74%	Can pay rent no more than \$5.00/ room										98.26%	Can pay rent more than \$ 5.00/room
3.64%	Can pay rent more than \$ 5.00/room but less than \$10.00/room										94.62%	" " " " " 10.00/ "
3.72%	" " " " " 10.00/ "	"	"	"	"	"	"	"	"	"	90.90%	" " " " " 15.00/ "
5.39%	" " " " " 15.00/ "	"	"	"	"	"	"	"	"	"	85.51%	" " " " " 20.00/ "
18.11%	" " " " " 20.00/ "	"	"	"	"	"	"	"	"	"	67.40%	" " " " " 25.00/ "
12.77%	" " " " " 25.00/ "	"	"	"	"	"	"	"	"	"	54.63%	" " " " " 30.00/ "
10.74%	" " " " " 30.00/ "	"	"	"	"	"	"	"	"	"	43.89%	" " " " " 35.00/ "
5.02%	" " " " " 35.00/ "	"	"	"	"	"	"	"	"	"	38.37%	" " " " " 40.00/ "
7.59%	" " " " " 40.00/ "	"	"	"	"	"	"	"	"	"	31.28%	" " " " " 45.00/ "
4.08%	" " " " " 45.00/ "	"	"	"	"	"	"	"	"	"	27.20%	" " " " " 50.00/ "
5.57%	" " " " " 50.00/ "	"	"	"	"	"	"	"	"	"	21.63%	" " " " " 55.00/ "
3.73%	" " " " " 55.00/ "	"	"	"	"	"	"	"	"	"	17.90%	" " " " " 60.00/ "
7.88%	" " " " " 60.00/ "	"	"	"	"	"	"	"	"	"	10.02%	" " " " " 65.00/ "
0.85%	" " " " " 65.00/ "	"	"	"	"	"	"	"	"	"	9.17%	" " " " " 70.00/ "
5.00%	" " " " " 70.00/ "	"	"	"	"	"	"	"	"	"	4.17%	" " " " " 80.00/ "
4.17%	" " " " " 80.00/ "	"	"	"	"	"	"	"	"	"		

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In order to produce low and moderate-income housing in the area, subsidies will have to be provided. The following are among the various forms these subsidies could take:

1. A reduction of annual debt service charges, which can be achieved by either a direct interest subsidy or by the provision of capital grants in amounts sufficient or reduce mortgages to levels that will require similar net debt service payments.
2. A reduction of the New York City real estate taxes.
3. A reduction in the equity return of six percent or eliminating it by providing a capital grant subsidy of at least twenty-five percent of the total replacement cost.

Using a New York City real estate tax reduction of around ninety percent as a constant, and varying the capital grant subsidy 2/ and the annual debt service subsidy, we demonstrate various combinations to achieve the required rent reduction.

2/ In the following economic models, a minimum of twenty five percent capital grant was adhered to, to eliminate the need for equity. However, a variation might be developed, using an equity with a reduced return. The rest of the replacement cost would be provided by an insured mortgage of seventy-five percent of the total cost.

New Construction

In order to provide recommendations about the types of subsidies that are necessary to produce a reduction in rent, we shall examine the financial profile of a hypothetical new apartment unit of 4.75 rooms per unit (HUD room count).

If this hypothetical unit were developed privately, without subsidies, its financing might be as follows:

Replacement Cost	\$32,000
Conventional Mortgage @ seventy-five percent of Replacement Cost	24,000
Annual Debt Service Charges \$24,000 mortgage @ 9.66 percent (nine percent thirty years)	2,318
Annual Operating Expenses	1,200
Real Estate Taxes	2,240
Return on Equity - \$8,000 @ fourteen percent	<u>1,120</u>
TOTAL	6,878
Allowance for Vacancies and Contingencies	362
Required Annual Income	7,240
Required Monthly Income Per Room	127

In this economic model the following assumptions were made:

- 1) Six story construction with construction features comparable to those provided in HUD-assisted developments.
- 2) Replacement cost includes the development cost plus written-down cost of the land.

Considering the hypothetical dwelling unit of 4.75 rooms in this light and assuming a twenty-five percent capital grant, we could develop this financial profile:

A.	Replacement Cost	\$32,000.00	
B.	Capital Grant Subsidy	twenty-five percent of A 8,000.00	
C.	Balance	24,000.00	B-A
D.	Annual debt service charges (thirty years @ nine percent) (Effective rate 9.66%)	2,318.00	C x 9.66 percent

If we should aim for a monthly income (rent) of \$45.00 per room, for example:

E.	Monthly income/room	\$ 45.00	
F.	Annual income/dwelling	2,565.00	E x 4.75 x 12
G.	New York City Real Estate taxes (reduced about ninety percent)	256.50	ten percent of F
H.	Allowance for vacancies and contingencies	128.25	five percent of F
J.	Annual operating expenses	1,200.00	
K.	Annual debt service charge subsidies	1,337.00	See following text

If we are to realize our goal of a monthly income/room of \$45.00, F (\$2,565), the required annual income in the previous table should equal the total of D, G, H and J (\$3,902.75). The difference demonstrates the need for a subsidy to annual debt service charge K.

The following is a financial model to achieve the same results by increasing the capital grant subsidy,

B, to a level which eliminates the need for an annual debt service charge subsidy, K.

A.	Replacement Cost	\$32,000.00
B.	Capital Grant	68.29 percent
C.	Balance	\$10,147.50
D.	Annual debt service charge (@ a constant 9.66)	\$ 980.25
K.	Annual Debt service	-
J.	Annual operating costs	\$ 1,200.00
G.	Real Estate taxes (reduced by around ninety percent)	\$ 256.50
H.	Allowance for vacancies and contingencies	\$ 128.25
F.	Required annual income/dwelling units	\$ 2,565.00
E.	Required monthly income/room	\$ 45.00

Chart 1 is based on calculations to achieve the same rent levels by various combinations of the capital grant subsidy and the annual debt service charges subsidy. The rents in the various models were chosen to represent the rent capability of the majority of the CBMC area.

Chart 1 is used in determining the most suitable combinations of subsidies for each case. Each inclined line on the chart represents a rent level(\$5 increments). Each point on a rent level can be read vertically and horizontally to a combination of capital grant subsidy and an annual rent debt service charge subsidy that produces the specific rent level.

To illustrate this, we select as an example an annual rent level of \$45.00/room. Point X on the line represents a capital grant subsidy of forty-eight percent (or \$15,360) and an annual debt service charge subsidy of \$600.00. Over the duration of the mortgage - thirty years - this subsidy would equal \$18,000.00.

Tables 13, 14 and 15 illustrate subsidy combinations to produce various levels of rent.

It should be noticed that the minimum rent level to be achieved by these combinations is around \$25.00/room. A figure below that would not cover the annual operating expenses, the reduced real estate tax and the allowance for vacancies and contingencies.

Thus the percentage of the population whose rent paying ability falls below that figure would have to have an individual subsidy to cover the gap between the actual rent and a suitable share of their income.

Debt service
subsidy in
dollars/annum

2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0

with a grant of less than 25% - return on equity must be included

1 NEW CONSTRUCTION FINANCING ALTERNATIVES CHART

Rentals computed including:
90% tax abatement
no equity

\$25.00 / rm / month
\$30.00 / rm / month
\$35.00 / rm / month
\$40.00 / rm / month
\$45.00 / rm / month
\$50.00 / rm / month
\$55.00 / rm / month
\$60.00 / rm / month
\$65.00 / rm / month



3200 6400 9600 12800 16000 19200 22400 25600 28800 32000
Capital grant subsidy in dollars

Prepared by Jones and Darby, Inc.

TABLE XIII

Subsidy Combination to Produce a Lowered
Monthly Rent of \$35.00/Room

Replacement Cost	\$32,000.00	\$32,000.00	\$32,000.00
Capital Grant	25% \$ 8,000.00	40% \$12,000.00	83.96% \$26,868.00
Balance	\$24,000.00	\$19,000.00	\$ 5,132.00
Annual Debt Service @ 90%	\$ 2,138.00	\$ 1,856.70	\$ 495.75
Annual Debt Service Subsidy	\$ 1,822.25	\$ 1,358.95	\$ 0
Annual Operating Expenses	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00
Real Estate Taxes	\$ 199.50	\$ 199.50	\$ 199.50
Allowance for Vacancies & Contingencies	\$ 99.75	\$ 99.75	\$ 99.75
Required Annual Income	\$ 1,995.00	\$ 1,995.00	\$ 1,995.50
Required Income Per Room	\$ 35.00	\$ 35.00	\$ 35.00

Prepared By: Jones and Darby, March 1973

TABLE XIV

Subsidy Combination to Produce a Lowered
Monthly Rent of \$30.00/Room

Replacement Cost	\$32,000.00	\$32,000.00	\$32,000.00
Capital Grant	24% \$ 8,000.00	40% \$12,800.00	91.80% \$29,375.00
Balance	\$24,000.00	\$19,200.00	\$ 2,625.00
Annual Debt Service @ 90%	\$ 2,318.00	\$ 1,854.70	\$ 253.50
Annual Debt Service Subsidy	\$ 2,064.50	\$ 1,601.00	\$ 0
Annual Operating Expenses	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00
Real Estate Taxes	\$ 171.00	\$ 171.00	\$ 171.00
Allowance for Vacancies & Contingencies	\$ 85.50	\$ 85.50	\$ 85.50
Required Annual Income	\$ 1,710.00	\$ 1,710.00	\$ 1,710.00
Required Income Per Room	\$ 30.00	\$ 30.00	\$ 30.00

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TABLE xv

Subsidy Combination to Produce a Lowered
Monthly Rent of \$25.00/Room

Replacement Cost	\$32,000.00	\$32,000.00	\$32,000.00
Capital Grant	25% \$ 8,000.00	40% \$12,800.00	99.6% \$31,881.00
Balance	\$24,000.00	\$19,200.00	\$ 119.00
Annual Debt Service @ 90%	\$ 2,318.00	\$ 1,854.70	\$ 11.50
Annual Debt Service Subsidy	\$ 2,306.50	\$ 1,843.20	\$ 0
Annual Operating Expenses	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00
Real Estate Taxes	\$ 142.50	\$ 142.50	\$ 142.50
Allowance for Vacancies & Contingencies	\$ 71.00	\$ 71.00	\$ 71.00
Required Annual Income	\$ 1,425.00	\$ 1,425.00	\$ 1,425.00
Required Income Per Room	\$ 25.00	\$ 25.00	\$ 25.00

Prepared By: Jones and Darby, March 1973

Rehabilitation

The financing of the rehabilitation of existing housing shall now be considered. On the basis of the exterior condition survey which has been conducted and which was discussed previously, buildings in poor repair were marked for rehabilitation. The buildings require varying degrees of work which must be considered in deriving economic models, thus, the rehabilitation work load has been classified as Intensive, Moderate and Minimal. Intensive rehabilitation requires a total gutting of the structure with major work on the partitions, plumbing, electrical wiring and exterior.

This category is estimated to form twenty-five percent of the number of units requiring rehabilitation. An average of \$22,000.00 per unit replacement cost which includes preconstruction expenditures is grossly estimated for intensive rehabilitation. A mortgage of nine percent interest over twenty-five years is required to cover this cost, (effective rate - 10.08 percent). The fees for preconstruction work are estimated at \$1,000.00 per unit. Preconstruction work should require three months while construction would be done in nine months. Should we try to develop this unit privately its financing might be as follows.

Intensive Rehabilitation

Replacement Cost	\$22,000.00
Mortgage (seventy-five percent of Replacement)	\$16,500.00

Annual debt service charge (Nine percent-twenty-five years effective rate 10.08 percent)	\$ 1,663.00
Equity	\$ 5,500.00
Equity return @ fourteen percent	\$ 770.00
Annual Operating Expenses	\$ 1,200.00
Real Estate Tax	\$ 1,540.00
Vacancies five percent	\$ 272.00
Required gross income/ year/dwelling unit	\$ 5,445.00
Required Monthly Rent/ room	\$ 95.00

This required monthly rent far exceeds the rent capabilities of CBMC residents, and the need for subsidies is evident. If we should aim to lower the monthly income (rent) to \$40.00 per room, by using subsidies in the form of capital grants and debt service subsidies, we could develop the following economic models. The first model uses solely a capital grant and the second employs exclusively an annual debt service subsidy. These two models, as such, represent two extremes of financing, the first requires a large input of money in a short period of time. The second alternative requires less immediate input, but uses up a larger subsidy over an extended period of time. These models are displayed in Table XVI.

TABLE XVI

Intensive Rehabilitation

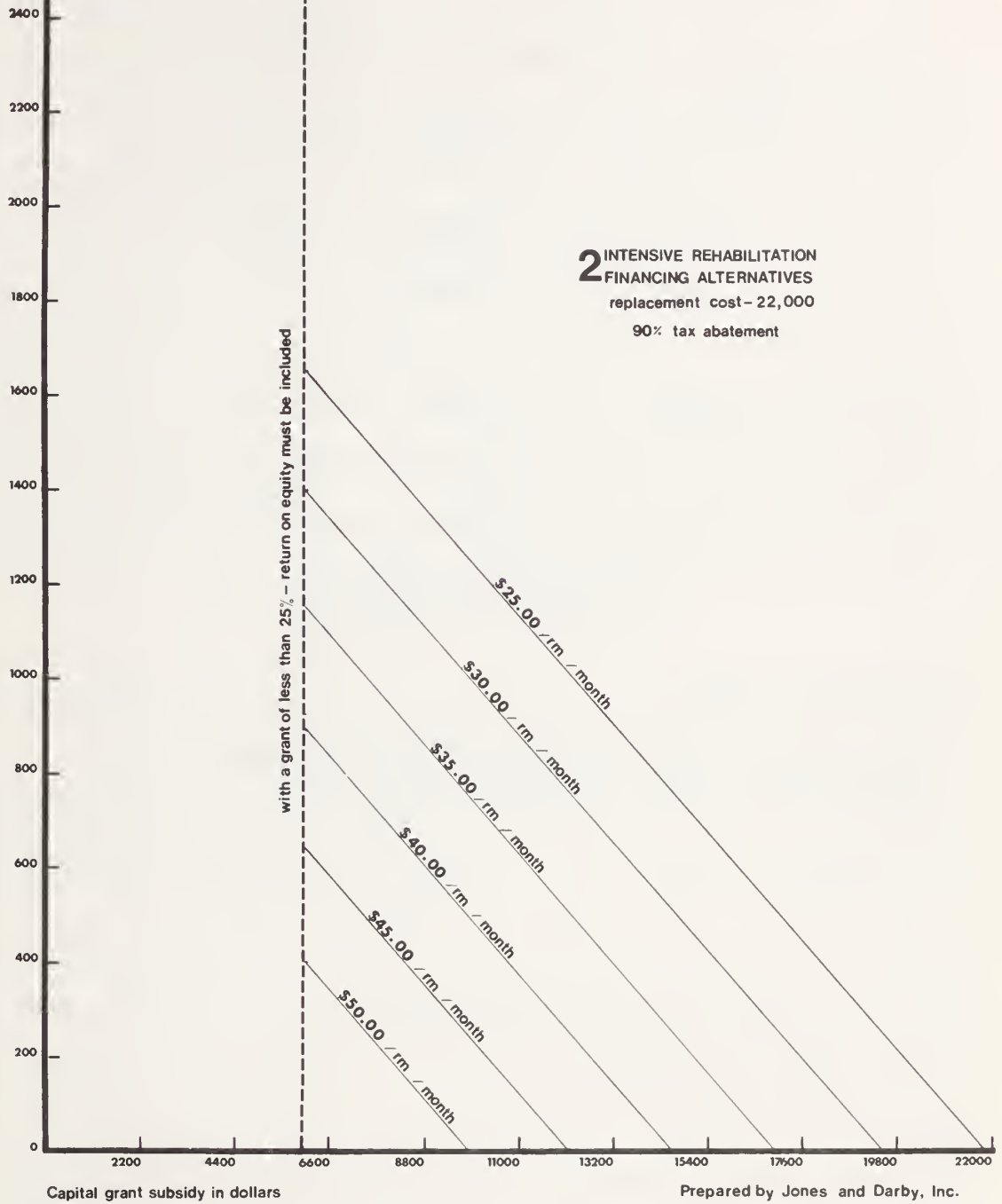
Alternative Financing to Achieve Reduced Rent Levels
of \$40.00/rm/month and \$25.00/rm/month respectively
(Tax Abatement of 90%)

Replacement Cost	<u>\$40.00/rm/month</u>		<u>\$25.00/rm/month</u>	
	<u>With Maximum Capital Grant</u>	<u>With Maximum Annual Subsidy</u>	<u>With Maximum Capital Grant</u>	<u>With Maximum Annual Subsidy</u>
	\$22,000.00	\$22,000.00	\$22,000.00	\$22,000.00
Capital Grant	14,679.00	5,500.00	21,888.00	5,500.00
Mortgage	7,321.00	16,500.00	112.00	16,500.00
Debt Service Charge (9% - 25 years, effective rate 10.08%)	738.00	1,663.00	11.25	1,663.20
Subsidy to Lower Debt Service Charge	0	925.00	0	1,651.95
Annual Operating Expenses	1,200.00	1,200.00	1,200.00	1,200.00
Real Estate taxes	228.00	228.00	142.50	142.50
Vacancies and Contingencies	114.00	114.00	71.25	71.25
Required Gross Income/yr/d.u.	2,280.00	2,280.00	1,425.00	1,425.00
Required Monthly Rent/rm	40.00	40.00	25.00	25.00

Prepared By: Jones and Darby, March 1973

Chart 2, derived from the preceeding economic models can be used to decide on alternative methods of financing by varying the capital grant and the amount of debt service subsidy for various rent levels.

Debt service
subsidy in
dollars/annum



The dwelling units that require moderate rehabilitation constitute thirty-five percent of the rehabilitation total. These units require new plumbing, electrical wiring, painting, window replacement and like repairs. The cost of such a rehabilitation is estimated at \$16,000 per unit. This would be financed via a mortgage at nine percent over twenty years, (effective rate 10.8 percent). The value of the rehabilitated structure is estimated to be around \$30,000. The expenditure for preconstruction preparation activity would require six months. The financial analysis for moderate rehabilitation parallels the method employed for intensive rehabilitation.

Moderate Rehabilitation

Conventional Financing

Replacement Cost	\$16,000.00
Seventy-five percent mortgage (Nine percent twenty-five years) Effective rate 10.8 percent)	\$12,000.00
Debt Service Charge Per Year	\$ 1,296.00
Equity	\$ 4,000.00
Return on equity @ fourteen percent	\$ 560.00
Annual Operating Costs	\$ 1,200.00
Real Estate Taxes	\$ 1,120.00
Vacancies (Five percent)	\$ <u>220.00</u>
Required gross income/year/ dwelling unit	\$ 4,396.00
Required monthly rent/room	\$ 77.00

TABLE XVII

Moderate Rehabilitation

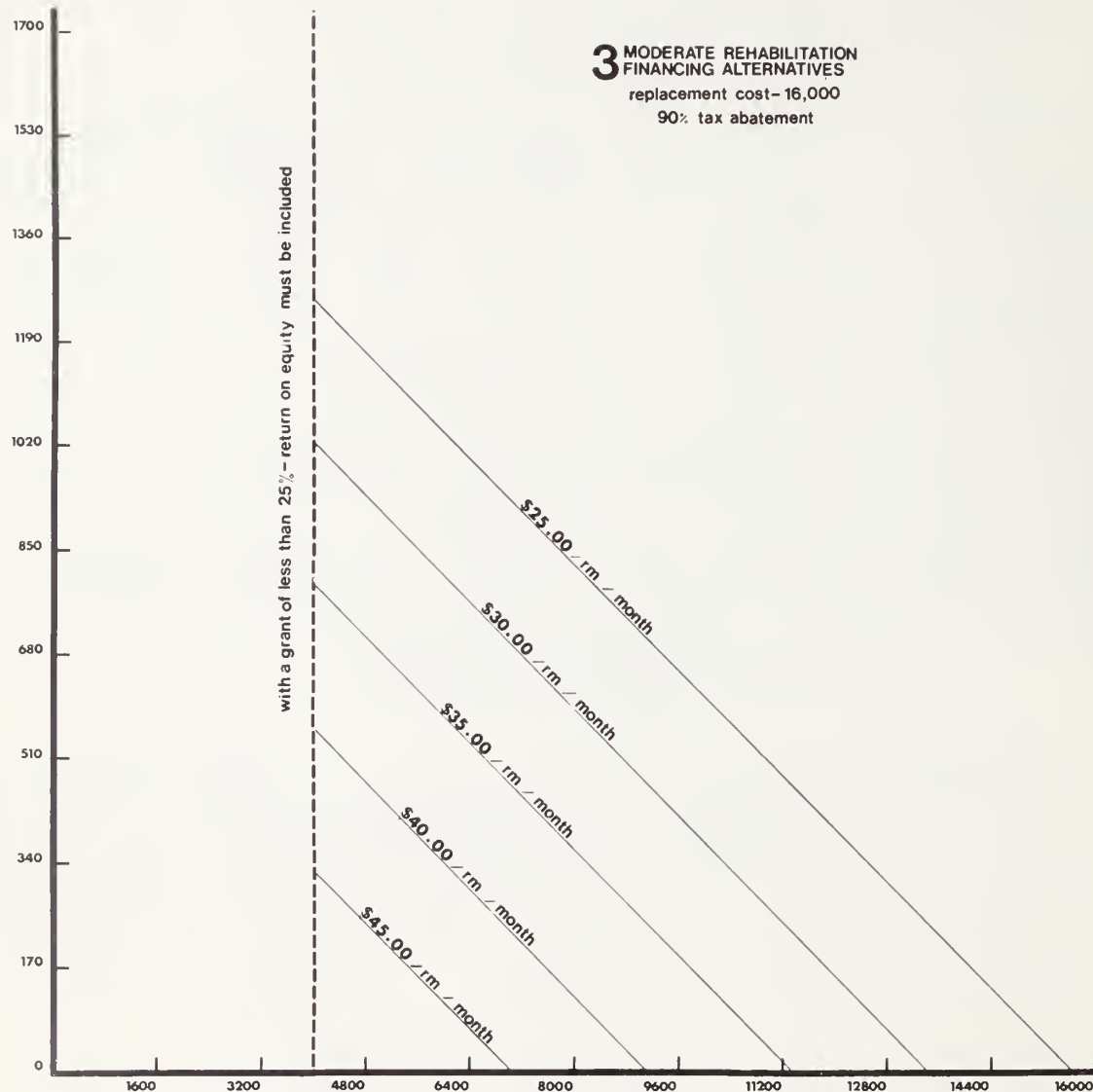
Alternative Financing to Achieve Reduced Rent Levels
of \$40.00/rm/month and \$25.00/rm/month respectively
(Tax Abatement of 90%)

	<u>\$40.00/rm/month</u>		<u>\$25.00/rm/month</u>	
	<u>With Maximum Capital Grant</u>	<u>With Maximum Annual Subsidy</u>	<u>With Maximum Capital Grant</u>	<u>With Maximum Annual Subsidy</u>
Replacement Cost	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00
Capital Grant	9,167.00	4,000.00	15,704.00	4,000.00
Mortgage	6,833.00	12,000.00	296.00	12,000.00
Debt Service Charge (9% - 15 years effective rate 10.8%)	738.00	1,296.00	32.00	1,296.00
Subsidy to Lower Debt Service Charge	0	558.00	0	1,284.00
Annual Operating Expenses	1,200.00	1,200.00	1,200.00	1,200.00
Real Estate taxes	228.00	228.00	142.00	142.00
Vacancies and Contingencies	114.00	114.00	71.00	71.00
Required Gross Income/yr/d.u.	2,280.00	2,280.00	1,425.00	1,425.00
Required Monthly Rent/rm	40.00	40.00	25.00	25.00

Prepared By: Jones and Darby, March 1973

Chart 3, derived from the preceeding economic models can be used to decide on alternative methods of financing by varying the capital grant and the amount of debt service subsidy for various rent levels.

Debt service
subsidy in
dollars/annum



Capital grant subsidy in dollars

Prepared by Jones and Darby, Inc.

The minimal rehabilitation units constitute forty percent of the total units designated or suggested for rehabilitation. These units require minor repairs and refinishing. The cost of such work would probably fall around \$7,000.00 per unit, with a mortgage of nine percent over ten years the effective rate of annual debt service would be 15.2 percent. Preconstruction work would cost \$250.00 per unit and would take three months to prepare. Actual renovation should take three months. The value of the rehabilitated unit would amount to around \$30,000.00. The financing models that follow retrace the same pattern illustrated for intensive rehabilitation.

Minimal Rehabilitation
Conventional Financing

Replacement cost	\$ 7,000.00
Seventy-five percent mortgage (Nine percent for ten years) Effective rate 15.2 percent)	\$ 5,250.00
Twenty-five percent equity	\$ 1,750.00
Debt service charge per year	\$ 798.00
Return on equity @ four- teen percent	\$ 245.00
Annual Operating cost	\$ 1,200.00
Real Estate Taxes	\$ 490.00
Vacancies Five percent	\$ 144.00
Required gross income/ year/dwelling unit	\$ 2,877.00
Required monthly rent/room	\$ 50.47

TABLE XVIII

Minimal Rehabilitation

Alternative Financing to Achieve Reduced Rent Levels
of \$40.00/rm/month and \$25.00/rm/month respectively
(Tax Abatement of 90%)

	<u>\$40.00/rm/month</u>		<u>\$25.00/rm/month</u>	
	<u>With Maximum Capital Grant</u>	<u>With Maximum Annual Subsidy</u>	<u>With Maximum Capital Grant</u>	<u>With Maximum Annual Subsidy</u>
Replacement Cost	\$7,000.00	\$7,000.00	\$7,000.00	\$7,000.00
Capital Grant	2,145.00	1,750.00	6,926.00	1,750.00
Mortgage	4,855.00	5,250.00	74.00	5,250.00
Debt Service Charge (9% -10 years, effective rate 15.2%)	738.00	798.00	11.25	798.00
Subsidy to Lower Debt Service Charge	0	60.00	0	786.75
Annual Operating Expenses	1,200.00	1,200.00	1,200.00	1,200.00
Real Estate taxes	228.00	228.00	142.50	142.50
Vacancies and Contingencies	114.00	114.00	71.25	71.25
Required Gross Income/yr/d.u.	2,280.00	2,280.00	1,425.00	1,425.00
Required Monthly Rent/rm	40.00	40.00	25.00	25.00

Prepared By: Jones and Darby, March 1973

Chart 4, derived from the preceding economic models can be used to decide on alternative methods of financing by varying the capital grant and the amount of debt service subsidy for various rent levels.

Debt service
subsidy in
dollars/annum

800
700
600
500
400
300
200
100
0

with a grant of less than 25% - return on equity must be included

\$40.00

\$35.00 / rm / month

\$30.00 / rm / month

\$25.00 / rm / month

1000 2000 3000 4000 5000 6000 7000 8000
Capital grant subsidy in dollars

4 MINIMAL REHABILITATION
FINANCING ALTERNATIVES
replacement cost-7,000
90% tax abatement

Prepared by Jones and Darby, Inc.

Implementation Staging

In assessing the time required to generate the total number of dwelling units, new and rehabilitated, which are described in this report, the following assumptions were made:

1. 2,000 new dwelling units could be started every year provided adequate funding were available.
2. 1,500 rehabilitation dwelling units could be started simultaneously with the 2,000 new dwelling units.

As stated in the Economic Analysis, the rehabilitation workload is classified as Intensive, Moderate, and Minimal. These classes are estimated to constitute twenty-five percent, thirty-five percent and forty percent respectively. The distribution of rehabilitation starts would include all three types in the same proportion each year. The selection of the specific structures to be included in the various phases should be decided according to a detailed study outside the scope of this report. The aim of the detailed study would be to give renovation priorities of the units whose rehabilitation would save its surroundings from blight and prevent other units from becoming abandoned or dilapidated, or would contribute positively to the general ambience of the neighborhood in which they are situated.

3. The preconstruction preparation required for new construction is two years/2,000 dwelling units. Some preconstruction work has already been done on sites in Phase I. This would mean a reduction in the preconstruction time and an earlier start. Because of the sporadic occurrence of this condition, this fact has not been taken in consideration in the preparation of the timing chart.

4. The preconstruction time required for all classes of rehabilitation is three months.
5. The construction time required for delivering 2,000 new units is estimated at two years.
6. The construction time required for various classes of rehabilitation is estimated as follows:

Intensive:	Nine months
Moderate:	Six months
Minimal:	Three months

Chart 5 depicts our estimate of the timing required for implementing our recommendations.

5 TIME REQUIRED FOR IMPLEMENTATION

YEAR		1	2	3	4	5	6	7	8	9	10	11
NEW CONSTRUCTION	PHASE I			2000 d.u.s.								
					402 d.u.s.							
	PHASE II			1600 d.u.s.								
					2000 d.u.s.							
	PHASE III						986 d.u.s.					
							1014 d.u.s.					
							2000 d.u.s.					
REHABILITATION	MINIMAL 3110 40%	622 d.u.s.										
			622 d.u.s.									
				622 d.u.s.								
					622 d.u.s.							
						622 d.u.s.						
	MODERATE 2721 35%	544 d.u.s.										
			544 d.u.s.									
				544 d.u.s.								
					544 d.u.s.							
	INTENSIVE 1944 25%	388 d.u.s.										
			388 d.u.s.									
				388 d.u.s.								
					388 d.u.s.							

—— construction
 preconstruction

Prepared by Jones and Darby, Inc.

Required Subsidy

In the summary of Recommendations and Methodology, we arrived at the total number of dwelling units that can be generated on the various sites in Central Brooklyn Model Cities (CBMC). (See Table II). These fall in various categories of size and income as well as in various phases. We then developed the data which establishes the financial capabilities for monthly rent payments of the residents of CBMC. (See Table XII).

In the Financial Analysis, we established the various financing alternatives which can be used to achieve lowered rents on many levels as well as financing selection charts, and we estimated the time required to generate the dwelling units in the various phases. Drawing on the material in these discussions, we can estimate that the average rent within the economic capacity of the residents of CBMC is \$38.25/room/month, and the average size of dwelling units according to the statistics is 4.08 rooms/dwelling.

Using the previous data as a base, we develop here in chart form, two extreme alternative courses of financing. Chart 6 depicts an alternative where financing relies on a maximum capital grant and no annual debt service charge subsidy. The cumulative required subsidy required under this alternative represents the minimum amount of subsidy. The subsidy amounts are related to the

timing of implementation as seen on Chart 5. Chart 7 depicts a financing which uses a minimum capital grant, but relies mainly on an annual subsidy to lower the debt service charges. This represents the maximum expenditure of subsidy. The subsidy amounts are related to the timing of the implementation and to the duration of the variously timed mortgages. Chart 8 illustrates the comparison of the two courses of financing.

The use of these two extreme courses of financing was chosen to demonstrate the range of choices. This chart could be used by CBMC-HDC as a guide in selecting either of these extreme types of financing or any of the many alternatives that lie between these two extremes.

6 FINANCING ALTERNATIVE MAXIMUM CAPITAL GRANT

YEARS		1	2	3	4	5	6	7	8	9	10	11
NEW CONSTRUCTION	PHASE I	1,000,000	1,000,000	20,680,000 2000 d.u.s.	20,680,000							
			201,000	201,000	4,156,680 402 d.u.s.	4,156,680						
	PHASE II		800,000	800,000	16,544,000 1600 d.u.s.	16,544,000						
				1,000,000	1,000,000	20,680,000 2000 d.u.s.	20,680,000					
					493,000	493,000	10,195,240 986 d.u.s.	10,195,240				
	PHASE III				507,000	507,000	10,484,760 1014 d.u.s.	10,484,760				
						1,000,000	1,000,000	20,680,000 2000 d.u.s.	20,680,000			
							1,000,000	1,000,000	20,680,000 2000 d.u.s.	20,680,000		
								1,000,000	1,000,000	20,680,000 2000 d.u.s.	20,680,000	
									641,000	641,000	13,255,880 1282 d.u.s.	13,255,880
REHABILITATION	MINIMAL	1,289,406 622 d.u.s.										
			1,289,406 622 d.u.s.									
				1,289,406 622 d.u.s.								
					1,289,406 622 d.u.s.							
	MODERATE	4,379,200 544 d.u.s.										
			4,379,200 544 d.u.s.									
				4,379,200 544 d.u.s.								
					4,379,200 544 d.u.s.							
	INTENSIVE	4,882,204 388 d.u.s.										
			4,882,204 388 d.u.s.									
				4,882,204 388 d.u.s.								
					4,882,204 388 d.u.s.							
TOTALS		12,987,810	13,270,310	33,950,310	54,649,990	53,931,490	43,360,000	43,360,000	43,001,000	42,001,000	33,935,880	13,255,880

_____ capital grant
 ----- preconstruction

TOTAL: \$387,703,670

7 FINANCING ALTERNATIVE MINIMUM CAPITAL GRANT / MAXIMUM DEBT SERVICE SUBSIDY

Prepared by Jones and Darby, Inc.

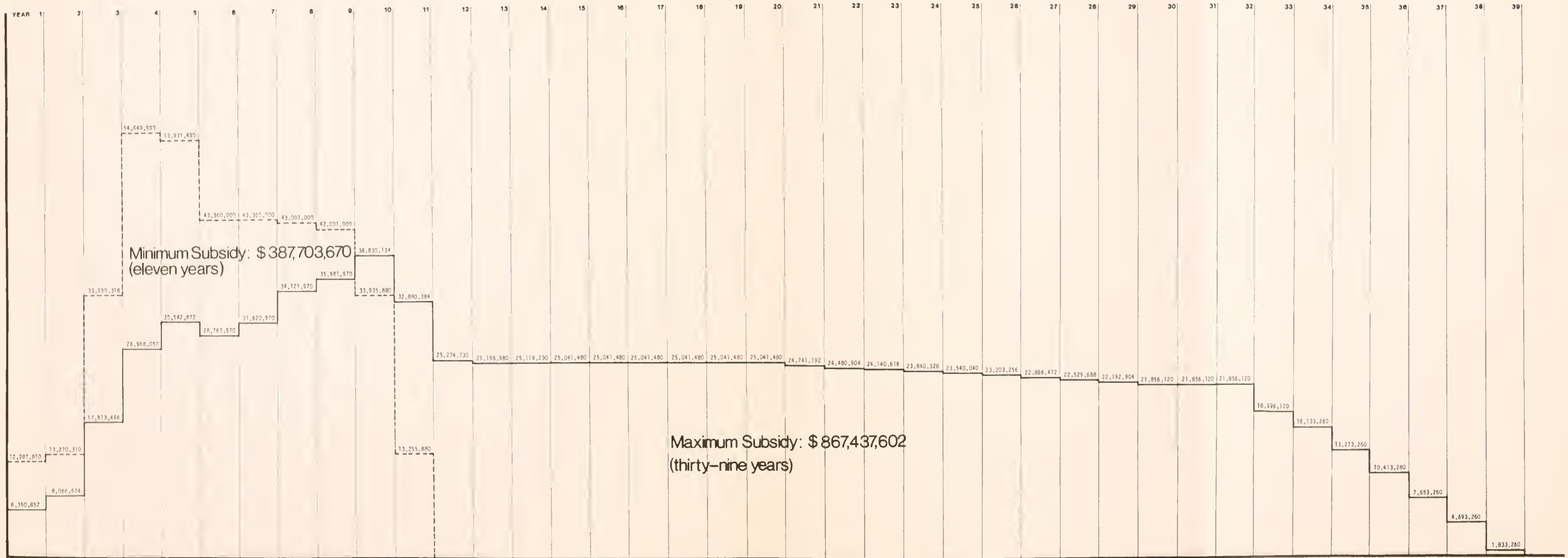
YEAR		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
NEW CONSTRUCTION	PHASE I	1,000,000	1,000,000	5,872,000 2,000 d.u.s.	5,872,000 2,000 d.u.s.																																			
			201,000	201,000	1,180,272 422 d.u.s.	1,180,272 422 d.u.s.																																		
				2,855,000	3,434,860	3,434,860	3,434,860	1,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	3,434,860	574,860		
	PHASE II		800,000	800,000	4,597,500 1600 d.u.s.	4,597,500 1600 d.u.s.																																		
				1,000,000	1,000,000	5,872,000 2000 d.u.s.	5,872,000 2000 d.u.s.																																	
					493,000	493,000	2,874,895 386 d.u.s.	2,874,895 386 d.u.s.																																
				2,298,000	5,148,000	6,557,980	6,557,980	6,577,280	6,557,280	6,577,980	6,577,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980	6,557,980		
	PHASE III			507,000	507,000	2,277,104 1014 d.u.s.	2,277,104 1014 d.u.s.																																	
					1,000,000	1,000,000	5,872,000 2000 d.u.s.	5,872,000 2000 d.u.s.																																
						1,000,000	1,000,000	5,872,000 2000 d.u.s.	5,872,000 2000 d.u.s.																															
						1,000,000	1,000,000	5,872,000 2000 d.u.s.	5,872,000 2000 d.u.s.																															
								541,000	641,000	7,527,904 1282 d.u.s.	7,527,904 1282 d.u.s.																													

----- preconstruction ——— capital grant ----- annual debt service subsidy

TOTAL \$867,437,602

8 TOTAL REQUIRED SUBSIDY MINI-MAXI FINANCING ALTERNATIVE (IN DOLLARS)

Prepared by Jones and Darby, Inc



It might be worthwhile here to mention some suggestions for other modes of financing. An obvious recourse is to the City and State Mitchell-Lama Program funding. This method would require additional subsidies to reduce the rent to the levels which are commensurate with the income levels of the CBMC area residents.

Another method of subsidization which addresses itself to the financing of condominiums has been proposed.^{3/} Financed by interest subsidized mortgages, as in the HUD section 236 Program, this proposal includes one basic difference. Instead of the ninety to 100 percent mortgage amounts, a fifty percent mortgage would be substituted with the remaining fifty percent financed by long term equity loans. The mortgage and equity would be extended by private lending institutions. The mortgage interest rate would be standard where as the equity loan would be scaled according to family income and with pre-established regulations. The proposal is intended to produce financing packages suitable for families with incomes up to \$21,000/year. The merits of the proposal are in using the resources of private institutions to expedite the delivery of housing. Because the proposal does not include cash subsidies it should cause less political roadblocks. The condominiums would have better maintenance and no tenant-landlord problems.

³ Tishman, Robert V., New York Times, Real Estate Section.

In some parts of the CBMC area, there is a strong sentiment for home ownership. Condominiums might thus prove suitable in approaching the delivery of dwelling units for that segment of the population.

Summary of Financial Data

15,270 new dwelling units (4.08 rms/unit) at \$27,485.00/unit

1,940 intensive rehabilitation units (4.08 rms/unit at
\$18,920.00/unit

2,270 moderate rehabilitation units (4.08 rms/unit) at
\$13,760.00/unit

3,110 minimal rehabilitation units (4.08 rms/unit) at
\$ 6,020.00/unit

Total replacement cost: \$506,703,670.00

Required Subsidy to achieve rent level of \$38.00/room/month:

Alternative I : \$387,703,670.00
(Maximum Capital Grant)

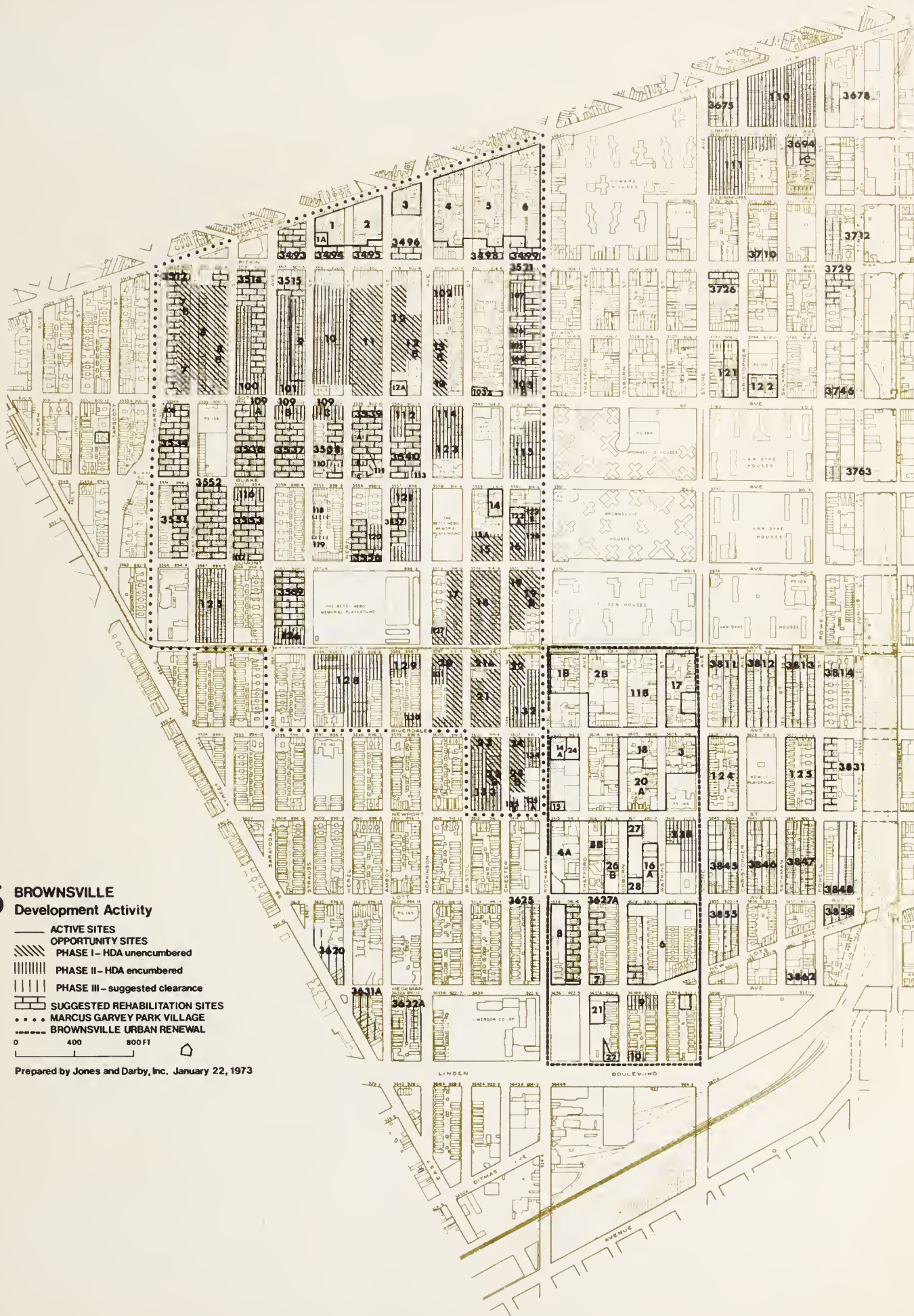
Alternative II :
(Minimal Capital Grant \$867,437,602.00
Maximum Debt service subsidy)

5 BROWNSVILLE Development Activity

- ACTIVE SITES
- OPPORTUNITY SITES
- PHASE I - HDA unencumbered
- PHASE II - HDA encumbered
- PHASE III - suggested clearance
- SUGGESTED REHABILITATION SITES
- MARCUS GARVEY PARK VILLAGE
- BROWNSVILLE URBAN RENEWAL

0 400 800 FT

Prepared by Jones and Darby, Inc. January 22, 1973



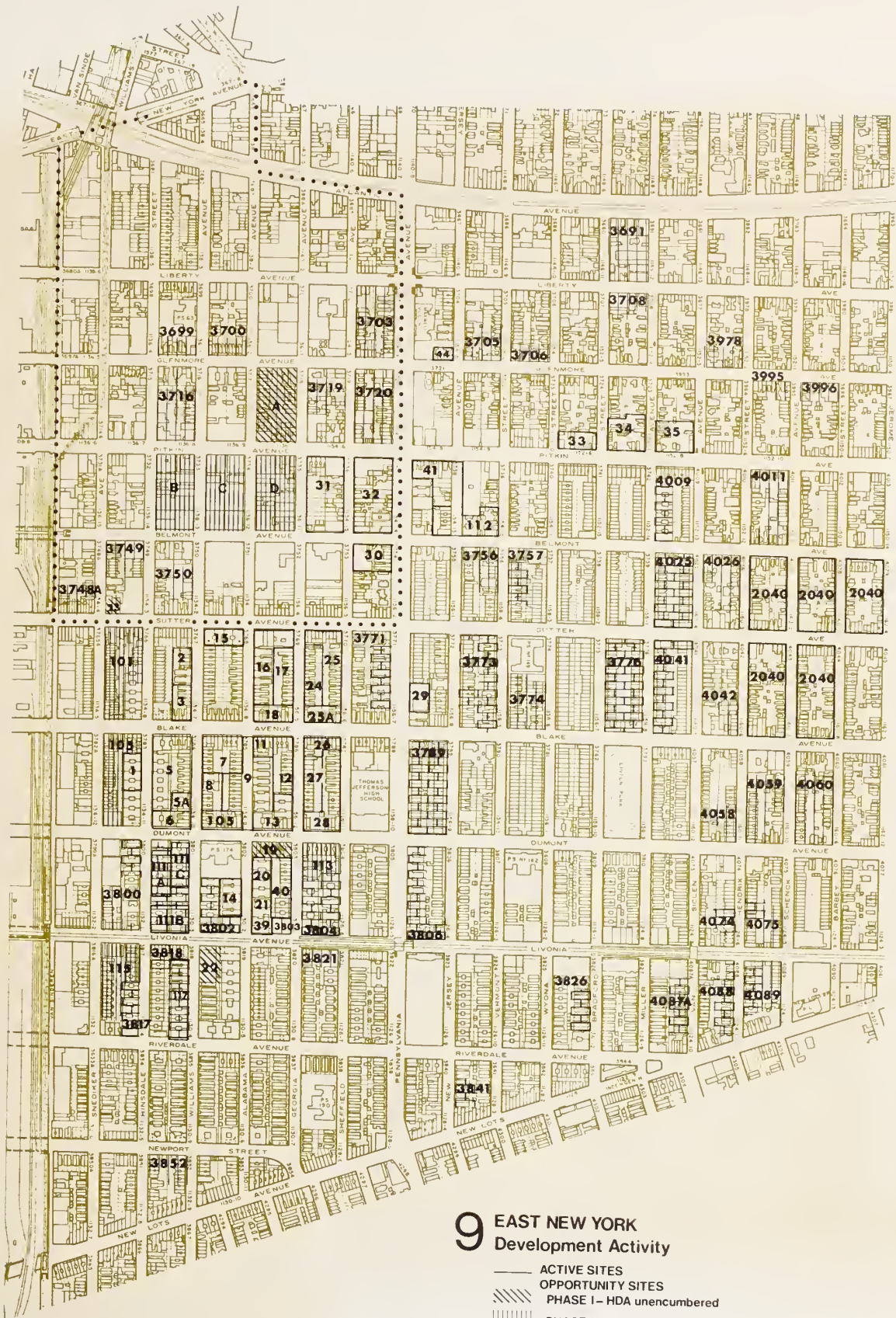
7 OCEAN HILL Development Activity

- ACTIVE SITES
- OPPORTUNITY SITES
- ||||| PHASE I - HDA unencumbered
- ||||| PHASE II - HDA encumbered
- ||||| PHASE III - suggested clearance
- SUGGESTED REHABILITATION SITES

0 400 800 FT

Prepared by Jones and Darby, Inc. January 22, 1973







11 BEDFORD-STUYVESANT
Development Activity

- ACTIVE SITES
- OPPORTUNITY SITES
- PHASE I - HDA unencumbered
- PHASE II - HDA encumbered
- PHASE III - suggested clearance
- SUGGESTED REHABILITATION SITES
- BED-STUY RESTORATION CORP. SITES
- STUYVESANT HEIGHTS HISTORIC DISTRICT
- NEIGHBORHOOD DEVELOPMENT PROGRAM

0 400 800 FT

Prepared by Jones and Darby, Inc. January 22, 1973

